

LOCATION**SPECIFIC COMMENTS**

- p 1-1, par. 2,
line 10 Insert "(RFI)" after RCRA Facility Investigation.
- p 1-6, par. 3 Include more detail on wind speed and wind direction
- p. 1-6 Include data on evaporation. This can be included in a separate paragraph including humidity (see page 1-7).
- p 1-7, Sec.
1 3.3.4, par. 1 State the average flows or range of flow for these creeks.
- p. 1-7, Sec.
1 3 3.4, par. 2 State that the Rock Creek drainage has not been impacted by RFP activities.
- The last sentence regarding the SID should be a separate paragraph.
- p 1-7, Sec.
1.3 3 5 Include a paragraph regarding species of concern (SOC) species at the RFP and the SOC species list from the threatened and endangered species Ecology SOP. For information, contact Bruce Hope, EG&G Rocky Flats, Inc. at 273-6230.
- p 1-12, par. 4 State that the Fox Hills Formation crops out west of the RFP and is not likely impacted by RFP activities.
- p 1-13, par. 2 Insert "approximately" before the hydraulic conductivity values listed in the last two sentences.
- p. 2-2, par. 2 Break the last two sentences on a computer search of catalogued drawings into a separate paragraph.
- p. 2-2, par. 3, The additional data compilation task is a scoping last sentence activity and should not be identified as a task in the work plan. The results of this task should be presented in this work plan. The NCP requires data compilation efforts to be completed prior to work plan development.
- p. 2-2, par. 3,
last sentence Sampling locations based on pre-field data compilation results should be included in the FSP as this is a scoping activity and not an RI/RFI activity.
- p 2-3, par. 2 The location of the inspectable process waste system should be shown relative to the OPWL in a figure in this work plan. A brief description of this system would also be appropriate to include in the text.
- p 2-4, Sec.
2 2 2, par. 2 Specify the types of active and inactive utility lines in the text.
- p 2-4, Sec.
2.2.2 2 Where are the analytical data for the chemical analysis of the waste? Has an attempt been made to locate this data? State in the text.
- p. 2-5, par 1 Where are the flow data located? Has an attempt been made to locate this data? State in text.

- p 2-7, 1st two bullets To be consistent with paragraph 3 on page 7-1, state that these tanks will not be a part of this RFI/RI investigation.
- p. 2-8, par. 2, last sentence Delete from text. Recommendations do not belong in a work plan.
- p 2-9, Sec. 2 3 2, line 2 Delete "which is too voluminous to include as an appendix".
- p. 2-10, par. 4, line 1 "Co" should be "CO".
- p. 2-14, par. 3, last sentence Verify with Bob Fiehweg, EG&G Rocky Flats, Inc., 966-6632, that this statement is true. If not, revise text.
- p 2-15, last par., line 3 Insert "approximately" before the hydraulic conductivity value.
- p 2-17, par 1, line 1 See comment for p. 2-15, last par., line 3.
- p. 2-17, par. 1, last sentence How can this be acknowledged but not quantitatively defined? Reword or delete from text.
- p. 2-17, Sec. 2.4.1 Are these chemicals listed in the closure plan based on the waste analyses described on page 2-4?
- p 2-20, par. 3 Were release volumes calculated? If so, are the records available? State in text.
- p 2-20, par. 4 Data compilation is a scoping task as defined by the NCP and should be completed prior to work plan development. It is not an RFI/RFI activity unless it was not available during scoping.
- p 2-21, par. 1, last sentence This is a scoping task. The results of this effort should be in this work plan.
- p. 2-21, Sec. 2 4.3 1, par. 2, line 1 Is "soil" truly soil as defined by a soil scientist? If not, it should be referred to as vadose zone or geologic material. We do not want to compare the background data from geologic material with that from true soil.
- p 2-22, 3rd bullet, last line Insert sediments and biota(?).
- p 2-22, 5th bullet Add both the Woman and Walnut Creek Drainages

- p 2-23, last sentence What about the chemical waste analyses described on page 2-4?
- p. 2-24, Sec. 2.5.2, line 6 Insert sediment and biota(?).
- p 2-24, Sec. 2.5.2.1, bullets Add bullets for corrosion and breakage (see page 2-19).
- p 2-25, line 1 Add "unless ponding occurred" after "trench materials". Also consider compatibility between pipeline material and enclosed fluids. Incompatibility could have led to releases.
- p. 2-25, last par , line 3 Discuss the origin and justification for this factor of 1.5 in the text.
- p. 2-26, Sec. 2.5.2.2, bullets Include a bullet for corrosion or breakage. Should also consider compatibility between tank material and contained fluids. Incompatibilities could have led to releases.
- p 2-26, Sec. 2.5.3, 3rd sentence Include potential receptors in the Woman and Walnut Creek drainages which may be impacted by groundwater and/or erosion of contaminated soil.
- p 2-26, Sec. 2.5.4 This primary goal is not described as an objective in Section 1.1.
- Table 2.5 State if the single hydraulic conductivity values are average values (e.g, mean, median, etc.) or approximate values.
- Table 2.6 State the source(s) of the OPWL waste stream characterization.
- Table 2.6, 1st page For Bldg. 123, HClO_4 should be HCrO_4
- Figure 2-4 Highlight the OPWL. It does not stand out adequately.
- Figure 2-8 What about sediments and biota? Include in figure.
- Should there be a line with an arrow that bypasses surface water above and left?
- Figure 2-9 Include fugitive dust and sediment in surface water.
- Highlight the bedrock/alluvial interface beneath the water table
- p. 3-1, par. 1 Why is it not appropriate to discuss action-specific and location-specific ARARs in this work plan?

ARARs Tables

Add the following ARARs:

- 1) DOE order 5400 5, Radiation Protection of the Public and the Environment
- 2) Endangered Species Act (ESA)
- 3) Migratory Bird Treaty Act (MBTA)
- 4) Fish and Wildlife Coordination Act (FWCA)

The latter three statutes have specific consultation requirements with the U.S. Fish and Wildlife Service. Note that the ESA and FWCA are listed in Part II of the EPA CERCLA Compliance with Other Laws Manual (EPA/540/G-89/009).

p. 5-1, par. 4

Reword last sentence.

p 5-3,
Subtask 1

Personnel interviews, an OPWL site walk and contacting personnel in facility operations should have been performed during scoping. I suspect much of the data compilation and evaluation could also have been performed during scoping.

p. 5-4, par. 1

The detailed health and safety plan is a scoping activity and should accompany this work plan as required by the NCP.

p 5-5, par. 4

If groundwater is encountered in a pipeline test pit, a groundwater grab sample should be collected. Add this to text.

p. 5-5, Sec.
5.3.4

Add surficial soil sampling for locations where liquids appeared at the ground surface, above-grade tanks and on-grade tanks.

p. 5-6, Sec.
5.3.4.2

For shallow tanks and pipelines, consider soil borings at a 45 degree angle to obtain samples below the structures.

p 5-7, par. 1,
line 2

Insert sediments.

p. 5-7

Add Section 5.5.3, Groundwater characterization. I recommend that limited groundwater characterization be conducted in the Phase I RFI/RI. This should include groundwater grab samples when possible during test pit excavation of pipelines and tanks. In addition, groundwater samples should be collected at appropriate locations from soil borings using the BAT system as in OU 7. The parameter list should mirror the soils and vadose zone materials. Include these tasks in the work plan.

This initial groundwater characterization will be valuable in developing a Phase II RFI/RI Work Plan for a possible detailed groundwater investigation. The rationale for limited groundwater sampling during Phase I should also be included in the text.

The FSP (Section 7) will need to incorporate this additional task also.

p. 5-7, Task 6

A paragraph on dose calculations consistent with DOE Order 5400.5 and Chapter 10 of EPA's Risk Assessment Guidance Document for Superfund should be included in the text for radionuclides.

p. 5-8, par. 3,
item no. 1

Replace with "Data Collection/Evaluation (identification of contaminants of concern)".

p. 5-8, par. 3,
item no. 5

Delete since uncertainty analysis should be included in each of the above four categories. Uncertainty analysis should be discussed in the text.

p. 5-8, par. 4,
line 1

Insert "and the NCP" after "As stated in the IAG".

p. 5-8, par. 4,
item no. 1

Insert "future or potential" after ""Current".

Delete items no. 2 and 3 since they are not part of the BRA.

p. 5-8, par. 5

Task 7 should be initiated during scoping and should be done concurrently with all RFI/RI phases. This is true for alternative development and screening and is required by the NCP. The text should be revised to reflect this activity.

p. 5-8 Sec.
5.7.1, line 2

Add sediments and biota.

p. 5-10, par. 2,
line 5

Add sediments and biota.

p. 5-10, par. 4,
line 5

Add sediments.

p. 5-13, 2nd
bullet

Add surficial soils.

For the 3rd bullet, add initial groundwater characterization.

Table 5.1

Add capping.

Figure 6.1

Include bar for the baseline risk assessment. This will need to extend to the left far enough to include environmental evaluation field activities, some of which were conducted during scoping.

Extend development/screening of alternatives to the left consistent with project planning for compliance with the NCP.

p 7-1, Sec.
7 1, par. 2

The information in the third sentence should also be presented early in the text regarding not conducting investigations under buildings.

p. 7-1, Sec.
7 2.1, line 1

Replace "an iterative" with "a staged".

p 7-2, par 3,
line 3

Replace "contamination plume" with "vertical and horizontal extent of soil contamination".

p 7-2, Sec.
7 2 2

The laboratory program for OU 9 should consist of the following:

- 1) VOCs - screen with soil gas and portable GC-use mobile laboratory for soil gas samples with hits, soil samples, wipe samples and groundwater samples. The mobile lab should use a GC-MS.
- 2) semi-VOCs - use mobile laboratory with GC-MS
- 3) metals - use off-site laboratory with two-week turnaround
- 4) radionuclides - use mobile laboratory
- 5) other inorganics - use mobile laboratory if possible

Five to ten percent of the samples should be split with a contract laboratory.

DQO analytical levels for mobile laboratories should be at least Level III.

Contact John Dick, EG&G Rocky Flats, Inc. for assistance with designing a mobile laboratory program at 966-5950.

p. 7-3 to
p. 7-5

The following activities are scoping in nature and should have been completed prior to developing this work plan:

- 1) data compilation (Sec.7.3.1)
- 2) site walk (Sec. 7.3.1.1)
- 3) interviews and record searches (Sec. 7.3.1 2)
- 4) historical release reports (Sec. 7.3.1.3)

p. 7-6, bullets

Add a bullet for grab groundwater samples and BAT system samples.

p. 7-6, par 3

All radiological surveys should be conducted with a high-purity Germanium, gamma-ray detector. Ron Reiman, EG &G Rocky Flats, Inc., 966-5946, should be contacted for input to this work plan regarding surface radioactivity surveying

- p 7-7, par 1 Grab samples and BAT system samples of groundwater should be collected for analysis. This should be referenced in the text of the work plan.
- p. 7-7, Sec
7.3.2.2, line 1 Since preliminary assessment has a specific meaning under CERCLA, I recommend that this sentence be rephrased
- p 7-7, last par. Consider the use of angled borings for soil samples where appropriate.
- p. 7-10, par 2 The work instructions and inspection form for tank inspections should be presented in the work plan.
- The site-specific Health and Safety Plan should include confined space entry procedures, etc.
- p. 7-11, par 1 Add a bullet for a grab groundwater sample if available.
- p 7-11, Sec.
7.3.3.2, line 1 See my comment for p. 7-7, Sec 7.3.2.2, line 1.
- p 7-13, par 1 Add grab and BAT system groundwater samples.
- Table 7.2 Add both grab and BAT system groundwater samples.
- Figure 7-3 Change contaminant plume to contaminated soil in examples 1 and 2.
- A BAT system groundwater sample should be depicted.
- Figure 7-6 Change contaminant plume to contaminated soil in examples 1 and 2.
- For example 1, a grab groundwater samples should be collected. In addition, a BAT system groundwater sample should be depicted.
- p. 8-1, 1st
bullet Change to Data Collection/Evaluation (identification of contaminants of concern)
- p. 8-1, last
bullet Delete. Uncertainty analysis should be included in each of the above four bullets.
- p 8-1, par. 2 Begin a new paragraph with the sentence beginning with "Figure 8-1..".
- p 8-1, par. 2 Add a bullet for release mechanisms.
- p 8-1 Include a paragraph on dose calculations consistent with DOE Order 5400.5 and Chapter 10 of RAGS.
- p. 8-2 Identification and description of contaminants of concern is the output of the Data Collection/Evaluation process, not as shown in the text.

- p. 8-3 Insert Phase I before RFI/RI.
- p 8-4, 2nd
series of
bullets The upper tolerance interval description should include both a probability statement for alpha and the proportion of the population. Revise text accordingly.
- p 8-5 The bullets at the top of the page are redundant with the text on page 8-4 and should be deleted. This second procedure has not been agreed to by the RFP Risk Assessment Technical Working Group.
- Add a section 8.2.4 on uncertainty in data collection/evaluation.
- p. 8-5, line 1 Add " under both current and potential future conditions" to the 1st sentence.
- p 8-5, 2nd
series of
bullets Add the following two bullets:
- 1) identify release mechanisms
- 2) estimate intake
- p 8-7, line 1
and par 2, line
1 Add "chemical-specific" before factors
- p 8-7, Sec.
8 3 5 Add "and the results of contaminant fate and transport modeling" to the first sentence.
- p 8-8, par. 2,
line 1 Delete the word "basic".
- Add "and/or numerical" after analytical.
- p 8-8, par. 3 Change second sentence to read "Reasonable efforts will be made to minimize the variance of model output.
- Delete the third sentence as it is probably not achievable.
- p. 8-10, par. 2,
line 4 Change "nearly" to "nearby".
- p 8-10, last
line Should "Statistical sampling" read "statistical simulation"?
- p 8-11, par. 1 Delete the word "not" in line one.
- Delete the words "magnitude and extent" in line two.
- p 8-11 and
8-12 Include a section on uncertainty analysis for the toxicity assessment.

- P. 8-13 This section should be included in Section 8 5 on risk characterization.
- p. 8-13, 2nd
to last line Change necessary to possible.
- p. 8-13, last
line Delete the phrase "if a vigorous analysis is required".
- More detail is needed on quantitative uncertainty analysis planned for the BRA
 at OU 9.
- Figure 8-1 A bullet for evaluating uncertainty should be included in the boxes for data
 collection and evaluation, exposure assessment and toxicity assessment.
- Include a bullet for fate/transport modeling in the exposure assessment box.